

Task 2.0 IMAGING TECHNOLOGY

a. General requirements - The Contractor shall comply with Approval, Production, Distribution, and Management of Audiovisual Products and Services, NMI 1383.1, as revised; Processing Requests for Work and Services, Glenn Management Instruction (LMI) 9420.2C, as revised; NASA Records Management, NPD 1440.6E, as revised; NASA Records Management Program, NMI 1440.6D, as revised; NASA Records Retention Schedule (NRRS), NHB 1441.1, as revised; Managing Conduct and other Employee Issues, LMI 1900.3, as revised; Glenn Security Program, LMI 1600.1, as revised; Glenn Safety Program, LMI 1702.1, as revised; Chemical Hygiene Policy and Responsibilities, LMI 8710.2, as revised; NASA Safety and Health Program, NMI 8710.2A, as revised; Photosafe Software Program for Photographic Laboratory Standards, as revised; Registration of Claims to Copyright, Group Registration of Photographs, CFR Title 37, Part 202; 17 United States Code Sections 106 and 107; 28 United States Code Section 1498; Photo Copyright Guidelines of the International Photo Marketing Association, as revised; Copyright Ownership in a Networked Multimedia Environment, Imaging Technology Center Standard Operating Procedures, NASA Technical Memorandum (TM) 106733, as revised; Federal Communications Commission (FCC) Rules and Regulations, as revised; and the Society of Motion Picture and Television Engineers (SMPTE) Standards, as revised.

Image quality shall meet the needs of the Imaging Technology Center (ITC) customers. Images shall be appropriate for magazine covers, research publications and televised video productions. In addition, images shall portray creativity and impact to convey the importance and merit of research programs.

b. Description of work - The Contractor shall provide support services, labor and operational supplies for customer-driven imaging technology requirements. The Contractor shall provide custom classified and nonclassified imaging support for aeronautical research, engineering, physical science and other programs as required for Glenn and NASA. The Contractor shall utilize current state-of-the-art imaging systems to achieve the imaging technology goals in a research and development environment.

Within the scope of ITC tasks, the Contractor shall use specialized cameras, recording instruments and related equipment. The Contractor shall use, develop or adapt specialized imaging technology equipment not found in typical photographic shops. Since assignments typically involve problems not commonly encountered, the Contractor shall improvise new methods and techniques for using equipment.

The Contractor shall participate in the design, specification, acquisition and operation of the imaging portion of research systems. The Contractor shall gather visual data and produce the final products to meet the customer's requirements. This visual data is often the *ONLY* information available from a program. The Contractor shall negotiate with ITC customers the equipment to be used, final quality and quantity of product desired, time schedules and pay-for-service costs. The Contractor shall comprehend the program requirements in order to anticipate problems and adapt strategies to ensure the capture of required data.

The Contractor shall adapt to customer-driven schedules. This may require travel on short notice

as well as occasionally performing duties before and/or after regular working hours, weekends and holidays. These tasks may be performed at Glenn, Plum Brook Station, NASA Centers or at other locations identified by the customer. Tasks may be performed indoors, outdoors or on research aircraft.

The Contractor shall work with NASA project offices to develop interactive video and multimedia products that are NASA defined milestones and project deliverables.

A project management approach will be adopted to manage these technically complex projects. Contractor will define project scope, timeline, and deliverables required. In addition, the Contractor will develop and report project budget requirement and deliverable status.

The Contractor shall coordinate tasks with ITC departments, Glenn customers and off-site service providers to ensure that requirements and schedules are met.

The Contractor shall use various computer systems, including Macintosh, Windows, Disk Operating System (DOS) and Unix, in ITC operations and in the capture and dissemination of images via electronic means.

The Contractor shall maintain or obtain maintenance for various Government-provided imaging systems. Government-provided imaging systems may include cameras, film and print processors, printers and computers (Refer to Attachment B).

The Contractor shall maintain and order stock supplies to ensure continuous research and production support.

Contractor employees shall have valid Ohio driver's licenses.

Contractor employees must obtain *SECRET* security clearances as defined in Section H, (Refer to Attachment C).

Contractor employees collecting flight research data shall be required to obtain and/or maintain a Federal Aviation Administration (FAA) Class II Medical Flight Certificate.

During ITC weekly meetings the Contractor shall verbally report on activities and problems in each respective department.

c. Quality standards - The Contractor shall comply with the general requirements specified in paragraph a. of this task.

The Contractor shall comply with special instructions set forth in requestors' work requests. The Contractor shall ensure quality, layout, sensitive content, neatness and accuracy of each task.

The Contractor shall demonstrate evidence of state-of-the-art knowledge in imaging technologies.

The Contractor shall distribute, and collect evaluation forms after the work has been performed and assess them with the TR to gauge customer satisfaction.

d. Schedule - The Contractor shall confer with the customer and the TR to ensure comprehension of the requirements and deliverables. Contractor schedules shall be predominantly driven by customer requirements. The Contractor shall complete tasks in accordance with the schedule approved by the customer and the TR.

e. Documentation - The Contractor shall document work requests in the ITC Business System, which is a Windows-based database system. The Contractor shall maintain financial and acquisition accountability in the database system.

The Contractor shall provide the TR with output and production reports such as: Product Service Totals, Work Order and C-Number Totals, Copy Room Totals, Motion Picture Processing Totals, Video Tape Duplications, Digital Imaging Totals, Still Imaging Job and Exposure Totals, Black and White Hope Film Processor, Color Print Totals, Black and White Print Totals, Copy Camera Totals, C-41 Film Processing Totals, E-6 Film Processing Totals, Audio Visual Job Totals, Price List, Customer List, Invoice List, Summary Invoice, and C-Log on a monthly basis.

The Contractor shall catalog and record research data. If images are deemed archivable, the Contractor shall process these images in established Government archives. The Contractor shall develop new cataloging systems as the imaging industry and NASA Records Management evolves.

The Contractor shall maintain customer evaluation results in an ITC networked database.

2.1 Production Administration Support

a. General requirements - The Contractor shall comply with the general requirements specified in Task 2.0.a., as applicable.

b. Description of work - The Contractor shall process in-coming work orders. The Contractor shall retrieve negatives from Glenn and/or Plum Brook Station and direct work orders to the appropriate departments.

The Contractor shall schedule requests for portrait and passport appointments.

The Contractor shall develop and implement record keeping with the approval of the TR.

The Contractor shall perform general office duties such as answering the telephone, filing, typing, delivering mail and making arrangements with Security for visitors to the ITC. The Contractor shall maintain and provide operational stock supplies with the approval of the TR.

The Contractor shall coordinate tasks with ITC departments, Glenn customers and off-site service providers to ensure that requirements and schedules are met.

During ITC weekly meetings, the Contractor shall verbally report on activities and problems in each respective department.

c. Quality standards - The Contractor shall comply with the general requirements specified in paragraph a. of this task.

The Contractor shall ensure that the customers are satisfied with the products and services they receive. The Contractor shall answer questions and/or direct customers to appropriate personnel. The Contractor shall check out-going work requests for completeness and accuracy.

The Contractor shall distribute, and collect evaluation forms and assess them monthly with the TR to gauge customer satisfaction.

d. Schedule - The Contractor shall comply with the schedule agreed to with the TR.

e. Documentation - The Contractor shall record image cataloging information as the work is performed. Cataloging shall include requestor, date, time, location and content of the image.

The Contractor shall document work requests in the ITC Business System database as the work is performed. The Contractor shall include the requestor, date, time, location, content of the image, and financial accounting information in the database.

The Contractor shall archive, process and prepare negatives, prints, motion pictures and videos for transfer to Plum Brook Station or for permanent retention by the National Archives and

Records Administration (NARA) in accordance with the NASA Records Retention Schedule.

The Contractor shall maintain daily a database of imaging equipment loaned to customers.

The Contractor shall maintain monthly the customer evaluation results in an ITC networked database.

2.2 Scientific Imaging

a. General requirements - The Contractor shall comply with the general requirements specified in Task 2.0.a., as applicable.

b. Description of work - The Contractor shall provide support services, labor, and operational supplies for the creation of custom, classified and nonclassified, black and white, color and digital images for ITC customers. In addition, the Contractor shall provide images of scientific and technical space and ground-based mission imaging programs. The Contractor shall assist ITC customers in the “cradle-to-grave” development and operation of scientific imaging. This may include research, design, engineering, construction, assembly, integration, installation, management, and operation tasks. In addition, this may include acquisition of hardware, software and related components, and data reduction. The Contractor shall provide macro, thermal, micro, aerial and remote sensing images, as required.

The Contractor shall capture images during real-time experiments or downloaded using electronic means. The Contractor shall assist in the setup, operation, management and maintenance of various IAGP and/or customer-provided imaging systems and related equipment (Refer to Attachment B). These tasks may involve specialized imaging systems which are required to operate in microgravity, aircraft icing and other unusual environmental conditions.

The Contractor shall develop and implement imaging and data reduction techniques with the approval of the TR. The Contractor shall demonstrate an in-depth knowledge of various computer-based imaging systems. The Contractor shall be required to develop software to identify and enhance specific images.

The Contractor shall coordinate tasks with ITC departments, Glenn customers and off-site service providers to ensure that requirements and schedules are met.

The Contractor shall write technical papers and scientific reports, present technical information and act as liaison between researchers, ITC and off-site service providers.

The Contractor shall provide operational supplies such as specialized film, chemicals, recording media, equipment and maintenance items. Parts for Government and Contractor-supplied property may be included with these supplies. The TR will determine the type and the amount of items to be ordered.

During ITC weekly meetings, the Contractor shall verbally report on activities and problems in each respective department.

c. Quality standards - The Contractor shall comply with the general requirements specified in paragraph a. of this task.

Images shall be custom-made to meet the requirements of the requestor. Images shall be delivered on schedule and shall be error free. Images shall be sharp, clear, in-focus and in the format agreed upon with the customer. These images are often the *ONLY* record of scientific

data and one-time events. The images shall be technically accurate and shall be appropriate for magazine covers, research publications and televised video productions.

The Contractor shall distribute, and collect evaluation forms and assess them with the TR to gauge customer satisfaction.

d. Schedule - The Contractor shall comply with the schedule agreed to with the TR.

e. Documentation - The Contractor shall document work requests in the ITC Business System database as the work is performed. The Contractor shall include the requestor, date, time, location, content of the image, and financial accounting information in the database.

The Contractor shall document Scientific Imaging as the work is performed in the ITC Business System. Documentation shall include camera position, recording material, time, date, material quantities, processing information, results, and cataloging information.

The Contractor shall maintain monthly the customer evaluation results in an ITC networked database.

2.3 Video/Multimedia

2.3.1. Video Production

a. General requirements - The Contractor shall comply with the general requirements specified in Task 2.0.a., as applicable.

b. Description of work - The Contractor shall provide support services, labor and operational supplies for the creation of custom, classified and nonclassified videos. The Contractor shall provide video-audio engineering and video-audio duplicating. Video-audio duplication shall include transferring from one videotape format to another, from 16MM and 35MM black and white and color film to both positive or negative stock.

The Contractor shall provide services which include recording images and sound of scientific and technical data, public information events, visual presentations, exhibits, test installations, new facilities and construction sites, visiting dignitaries and other special events. In addition, the Contractor shall provide macro, micro, aerial and remote sensing images. The Contractor shall capture images and sound using the WWW, Compact Disk-Read Only Memory (CD-ROM) and other electronic means.

The Contractor shall assist in the setup, operation and maintenance of various Center and/or customer-provided video and audio systems and related equipment (Refer to Attachment B).

The Contractor shall develop and implement video and audio production and duplication techniques with the approval of the TR. The Dubbing Facility shall be capable of making at least 8 VHS copies simultaneously.

The Contractor shall develop and write scripts, capture raw footage and record sound to create documentary, motivational and informational research video and audio productions. The video and audio formats shall include 1-inch, Betacam SP, D-2, Hi-8, S-VHS and VHS.

The Contractor shall edit raw footage and include music and voice tracks as required. In addition, the Contractor shall record, edit and mix stereo audio, as well as provide audio sweetening for broadcast quality productions.

The Contractor shall provide editing services for standard format as well as tape standards converting capability from international formats such as from National Television Standard Committee (NTSC), Phase Alternate Line (PAL) and Sequential Couleur a' Memoire (SECAM) to any other standard.

The Contractor shall provide operational supplies such as specialized film, chemicals, recording media, equipment and maintenance items. Parts for Government and Contractor-supplied property may be included with these supplies. The TR will determine the type and the amount of items to be ordered.

The Contractor shall coordinate tasks with ITC departments, Glenn customers and off-site

service providers to ensure that requirements and schedules are met.

During ITC weekly meetings, the Contractor shall verbally report on activities and problems in each respective department.

c. Quality standards - The Contractor shall comply with the general requirements specified in paragraph a. of this task.

All video and audio productions shall be custom made to meet the requestor's requirements. Work shall be error free. Images and sound shall be sharp, clear, in-focus and delivered on time and in the agreed upon format as determined by the customer. These audio and video recordings are often the *ONLY* records of scientific data and/or one-time only events. Recordings shall be technically accurate and artistically, creatively and informationally credible.

The Contractor shall distribute, and collect evaluation forms and assess them monthly with the TR to gauge customer satisfaction.

d. Schedule - The Contractor shall comply with the schedule agreed to with the TR.

e. Documentation - The Contractor shall document work requests in the ITC Business System database as the work is performed. The Contractor shall include the requestor, date, time, location, content of the image and financial accounting information in the database. Video Production documentation shall include camera positions, recording material, time, date, material quantities, processing information, results, and cataloging information.

The Contractor shall maintain monthly customer evaluation results in an ITC networked database.

2.3.2 Multimedia

a. General requirements - The Contractor shall comply with the general requirements specified in Task 2.0.a, as applicable.

b. Description of work - The Contractor shall provide support services, labor and operational supplies for the conception, planning and production of custom classified and nonclassified interactive multimedia applications. In addition, the Contractor shall create 2-D and 3-D animation as requested by ITC customers.

The Contractor shall capture information, images and audio from a variety of sources. These sources shall include libraries and other traditional means and/or electronic sources such as WWW and CD-ROM.

The Contractor shall create documentary, motivational and informational multimedia productions and animation utilizing various computer hardware and software formats. In addition, the Contractor shall create and implement animation techniques for use in video and multimedia productions with the approval of the TR.

The Contractor shall coordinate tasks with ITC departments, Glenn customers and off-site service providers to ensure that requirements and schedules are met.

The Contractor shall provide services that include the setup, operation and maintenance of various Glenn and customer-provided multimedia and/or animation systems and related equipment (Refer to Attachment B).

The Contractor shall create custom applications using a variety of authoring software packages, create effective interfaces using a variety of illustration packages, edit and compile digital video and sound image processing, create CD-ROM-based multimedia programs and make recommendations on software purchases. Software packages currently used include Authorware, Director, Wavefront, Advanced Visualizer, and Composer. Digital disc recording formats include CCR 601.

The Contractor shall perform cross-platform hardware development, determine configuration requirements, utilize digital video and audio equipment and make hardware purchase recommendations.

The Contractor shall provide operational supplies such as specialized film, chemicals, recording media, equipment and maintenance items. Parts for Government- and Contractor-supplied property may be included with these supplies. The TR will determine the type and the amount of items to be ordered.

During ITC weekly meetings, the Contractor shall verbally report on activities and problems in each respective department.

c. Quality standards - The Contractor shall comply with the general requirements specified in paragraph a. of this task.

Multimedia productions and animation shall be custom made to meet the requestor's requirements. Work shall be error free. Images and sound shall be sharp, clear, in-focus and delivered on time and in the agreed upon format as determined by the customer. Images shall be artistically, creatively and informationally creditable, and technically accurate.

The Contractor shall distribute, and collect evaluation forms and assess them with the TR to gauge customer satisfaction.

d. Schedule - The Contractor shall comply with a schedule agreed to with the TR.

e. Documentation - The Contractor shall document work requests in the ITC Business System database as the work is performed. The Contractor shall include the requestor, date, time, location, content of the image, and financial accounting information in the database.

The Contractor shall document Multimedia as the work is being performed in the ITC Business System database. Documentation shall include all software and hardware used, recording

materials, time and dates, material quantities, production information, results, and cataloging information.

The Contractor shall maintain monthly customer evaluation results in an ITC networked database.

2.4 Still Imaging

2.4.1 Digital Imaging

a. General requirements - The Contractor shall comply with the general requirements specified in Task 2.0.a., as applicable.

b. Description of work - The Contractor shall provide support services, labor and operational supplies for the creation of custom, classified and nonclassified, black and white, color digital video and digital still images for ITC customers.

The Contractor shall assist in the acquisition, manipulation and output of digital images. This shall include research, design, management, acquisition of hardware and software, integration and installation in support of various research programs.

The Contractor shall coordinate tasks with ITC departments, Glenn customers and off-site service providers to ensure that requirements and schedules are met.

The Contractor shall set-up, operate, manage and maintain various Government and customer-provided camera systems and related equipment (Refer to Attachment B).

The Contractor shall develop and implement digital imaging capture and data reduction techniques with the approval of the TR.

The Contractor shall capture and transmit images via the use of specialized computers, scanners, CD-ROM recording and mastering equipment and other related digital imaging equipment. These images shall be captured from and sent out on the WWW, as well as submitted on CD or floppy disc. The output from this task includes computer discs, digital prints and vugraphs.

The Contractor shall act as a systems administrator for the many computer platforms utilized within the ITC; e.g. Macintosh, Windows, DOS and UNIX.

The Contractor shall create CD-ROMs utilizing Photo CD formats and CD-ROM mastering hardware and software. In addition, the Contractor shall utilize various forms of scanners, such as film and flatbed.

The Contractor shall provide operational supplies, such as specialized recording media equipment and maintenance. Parts for various Government and customer-provided property may be included with these supplies. The TR will determine the types and amounts of items to be ordered.

During ITC weekly meetings, the Contractor shall verbally report on activities and problems in each respective department.

c. Quality standards - The Contractor shall comply with the general requirements specified in paragraph a. of this task.

Images shall be custom made to meet the requirements of the customer. Images shall be delivered on schedule and shall be error free. Images shall be sharp, clear and in-focus and in the format agreed upon with the customer. These images are the *ONLY* record of scientific data and one-time events. The images shall be technically accurate and shall be appropriate for magazine covers, research publications and televised video productions.

The Contractor shall distribute, collect and assess evaluation forms with the TR to gauge customer satisfaction.

d. Schedule - The Contractor shall comply with the schedule agreed to with the TR.

e. Documentation - The Contractor shall document work requests in the ITC Business System database as the work is performed. The Contractor shall include the requestor, date, time and location, content of the image and financial accounting information in the database.

In addition, the Contractor shall create and maintain the Digital Image Management Catalog and database as the work is performed.

The Contractor shall document in the ITC Business System database Digital Imaging as the work is performed. Documentation shall include recording material, time and dates, material quantities, manipulation information, results and cataloging information.

2.4.2 Still Imaging

a. General requirements - The Contractor shall comply with the general requirements in Task 2.0.a., as applicable.

b. Description of work - The Contractor shall provide support services, labor and operational supplies for the creation of custom, classified and nonclassified, black and white, color, traditional and digital still images for ITC customers.

The Contractor shall capture images which include scientific and technical data, test installations, new facilities and construction sites, visiting dignitaries and special events, publicity portraits and passports. In addition, the Contractor shall produce micro, macro, aerial and remote sensing images.

The Contractor shall coordinate tasks with ITC departments, Glenn customers and off-site service providers to ensure that requirements and schedules are met.

The Contractor shall design, develop and/or modify and implement still imaging systems to meet customer requirements. In addition, specialized film processing may be required.

The Contractor shall provide services that include the setup, operation and maintenance of various Glenn and customer-provided camera systems and related equipment (Refer to Attachment B).

The Contractor shall develop and implement shooting and lighting techniques with approval of the TR.

The Contractor shall provide operational supplies such as specialized film, chemicals, equipment and maintenance items. Parts for Government and Contractor-supplied property may be included with these supplies. The TR will determine the type and the amount of items to be ordered.

During ITC weekly meetings, the Contractor shall verbally report on activities and problems in each respective department.

c. Quality standards - The Contractor shall comply with the general requirements specified in paragraph a. of this task.

Images shall be custom made to meet the requirements of the requestor. Images shall be delivered on schedule and shall be error free. Images shall be sharp, clear and in-focus and in the format agreed upon with the customer. These images are often the *ONLY* record of scientific data and one-time events. The images shall be technically accurate and shall be appropriate for magazine covers, research publications and televised video productions.

The Contractor shall distribute, and collect evaluation forms and assess them with the TR to gauge customer satisfaction.

d. Schedule - The Contractor shall comply with a schedule agreed to with the TR.

e. Documentation - The Contractor shall document work requests in the ITC Business System database as the work is performed. The Contractor shall include the requestor, date, time, location, content of the image and financial accounting information in the database.

The Contractor shall document in the ITC Business System database Still Imaging as the work is being performed. Documentation shall include camera positions, recording materials, time and dates, material quantities, processing information, results and cataloging information.

The Contractor shall maintain monthly customer evaluation results in an ITC networked database.

2.4.3 Photofinishing

a. General requirements - The Contractor shall comply with the general requirements specified in Task 2.0.a., as applicable.

b. Description of work - The Contractor shall provide support services, labor and operational supplies for the processing of custom, classified and nonclassified, black and white, and color film including still, motion picture and graphic arts. In addition, the Contractor shall print and process black and white and color negatives and transparencies and print electronic media as

requested by ITC customers.

The Contractor shall develop and implement processing and printing techniques with the approval of the TR.

The Contractor shall design, develop and/or modify and implement processing and printing techniques to meet customer requirements.

The Contractor shall coordinate tasks with ITC departments, Glenn customers and off-site service providers to ensure that requirements and schedules are met.

The Contractor shall provide operational supplies such as specialized film, chemicals, equipment and maintenance items. Parts for Government and Contractor-supplied property may be included with these supplies. The TR will determine the type and the amount of items to be ordered.

The Contractor shall provide additional services for black and white and color film processing, copy camera, and black and white color printing.

For black and white and color film processing, the Contractor shall provide services to set-up, operate, ensure quality, and maintain black and white and color film processors. Film to be processed shall include C-41 and E-6 film and 16mm and 35mm film of various sizes and lengths. In addition, the Contractor shall provide specialized film handling and processing for various research projects.

For copy camera services, the Contractor shall setup, operate, ensure quality, and maintain the precision microprocessor-controlled graphic arts camera and the roller transport film processor and related equipment. The Contractor shall evaluate the original copy and enhance the product quality through composing, process manipulation, stripping and opaquing. In addition, the Contractor shall maintain critical size tolerance levels as required by the customer. Reproductions shall consist of line and halftone negatives for reports and brochures, black and white and color vugraphs, black and white film positives for overlays and vugraphs, continuous tone copy negatives, line negatives for circuit boards and positives for reverse prints (Refer to Attachment B).

For black and white and color printing, the Contractor shall set-up, operate, ensure quality and maintain roller transport film and print processors, enlargers, video analyzers, computerized enlarging systems, motion picture printers and optical effects printers. In addition, the Contractor shall make recommendations regarding proper printing, mounting, display techniques for various imaging systems and special printing and processing requirements for scientific projects (Refer to Attachment B).

During ITC weekly meetings, the Contractor shall verbally report on activities and problems in each respective department.

c. Quality standards - The Contractor shall comply with the general requirements specified in

paragraph a. of this task.

All processing and printing shall be customized to meet the requirements of the requestor. Images shall be delivered on schedule and shall be error free. Images shall be sharp, clear and in-focus and in the format agreed upon with the customer. These images are often the *ONLY* record of scientific data and one-time events. The images shall be technically accurate and shall be appropriate for magazine covers, research publications and televised video productions.

Additional specific standards applicable to the three specific requirements cited above are detailed below.

The Contractor shall mix multiple chemicals, perform chemical analyses of mixed replenishers and working processor solutions error free. In addition, the Contractor shall recover silver from various chemical solutions. The Contractor shall maintain equipment to close tolerance levels in accordance with manufacturer's specifications and any specific requirements of specialized research objectives. The Contractor shall perform error free preventative maintenance. The Contractor shall operate specialized densitometric equipment to produce the quality of film negatives and positives required by the customer.

The Contractor shall distribute, and collect evaluation forms and assess them with the TR to gauge customer satisfaction.

d. Schedule - The Contractor shall comply with a schedule agreed to with the TR.

e. Documentation - The Contractor shall document work requests in the ITC Business System database as the work is performed. The Contractor shall include the requestor, date, time, and location, content of the image and financial accounting information in the database. Photofinishing documentation shall include camera positions, recording materials, time and dates, material quantities, processing information, results and cataloging information.

The Contractor shall maintain monthly customer evaluation results in an ITC networked database.

2.5 Audiovisual

a. General requirements - The Contractor shall comply with the general requirements specified in Task 2.0.a., as applicable.

b. Description of work - The Contractor shall provide audiovisual services, labor, and operational supplies for customized classified and nonclassified meetings, presentations, exhibits, and other audiovisual needs as requested by ITC customers.

The Contractor shall provide services to set-up, operate and maintain various Glenn and customer-provided audiovisual systems and related equipment (Refer to Attachment B).

The Contractor shall develop and implement audiovisual production techniques with the approval of the TR.

The Contractor shall provide audio and video recording and editing services for lectures, seminars, training sessions and other similar events.

The Contractor shall provide operational supplies such as specialized recording media, equipment and maintenance items. The TR will determine the type and the amount of items to be ordered.

The Contractor shall coordinate tasks with ITC departments, Glenn customers and off-site service providers to ensure that requirements and schedules are met.

During ITC weekly meetings, the Contractor shall verbally report on activities and problems in each respective department.

c. Quality standards - The Contractor shall comply with the general requirements specified in paragraph a. of this task.

All audiovisual services and products shall be customized to meet the customer's requirements. Audiovisual products shall be delivered on schedule and shall be error free. Images shall be sharp, clear and in-focus and in the format agreed upon with the customer. This audio and video are often the *ONLY* record of scientific data and one-time events. The images shall be technically accurate, error free, and appropriate for magazine covers, research publications and televised video productions.

The Contractor shall distribute, and collect evaluation forms and assess them with the TR to gauge customer satisfaction.

d. Schedule - The Contractor shall comply with a schedule agreed to with the TR. Audiovisual services may be required before, during and/or after normal working hours. The Contractor shall accomplish this task without the use of overtime.

e. Documentation - The Contractor shall document work requests in the ITC Business System

database as the work is performed. The Contractor shall include the requestor, date, time, location, content of the image and financial accounting information in the database.

The Contractor shall document in the ITC Business System database Audiovisual work as it is being performed. Documentation shall include camera positions, recording materials, time and dates, material quantities, production information and results.

The Contractor shall maintain customer evaluation results in an ITC networked database.

2.6 Law Enforcement Support

- a. General requirements - The Contractor shall comply with the general requirements specified in Task 2.0.a., as applicable.
- b. Description of work - The Contractor shall provide digital imaging, video, and audio services to local, state, and national law enforcement agencies in pursuit of criminal investigations. The Contractor shall use a variety of image and sound enhancement techniques on evidence submitted. These techniques include digitizing video, employing the use of image processing filters on either electronically or conventional paper materials. In addition, the Contractor shall provide consulting services to assist law enforcement agencies to improve the quality of the images and audio they capture as evidence materials in criminal investigations.
- c. Quality standards - The Contractor shall comply with the general requirements specified in paragraph a. of Task 2.0.
- d. Schedule - The Contractor shall comply with a schedule agreed to with the TR and applicable law enforcement agency.
- e. Documentation - The Contractor shall document actual time and cost associated with the work requests in the LTOC business system, and document hours in the PIMS system.

2.7 Image Archiving

- a. General requirements - The Contractor shall comply with the general requirements specified in Task 2.0.a., as applicable.
- b. Description of work – Consistent with the work provided under Task 2.4 .1 Digital Imaging, the Contractor shall maintain an archive of the photographic images in compliance with NARA regulations. Archiving activities include the scanning of film negatives, or formatting of a digitally captured image, collection and entering of metadata of image content into archive database, formatting of preview and high-resolution files, and storage of files onto mass storage systems. Additionally, the Contractor shall maintain the mass storage devices.
- c. Quality standards - The Contractor shall comply with the general requirements specified in paragraph a. of Task 2.0.

- d. Schedule - The Contractor shall comply with a schedule agreed to with the TR.
- e. Documentation - The Contractor shall document actual time and cost associated with the work requests in the LTOC business system, and document hours in the PIMS system.

2.8 Photographic Documentation of Research

- a. General requirements - The Contractor shall comply with the general requirements specified in Task 2.0.a., as applicable. The Contractor shall comply with NPD 1383.1a “Release and Management of Audiovisual Products and Services.”
- b. Description of work – Consistent with the work provided under Task 2.4.2 Still Imaging, the Contractor shall obtain high-quality images of all ongoing programmatic activities. These images shall be captured using high-quality equipment and materials. These publication quality images will use lighting, composition, and stylistic techniques suitable for release as NASA Public Relations materials.
- c. Quality standards - The Contractor shall comply with the general requirements specified in paragraph a. of Task 2.0.
- d. Schedule - The Contractor shall comply with a schedule agreed to with the TR.
- e. Documentation - The Contractor shall document actual time and cost associated with the work requests in the LTOC business system, and document hours in the PIMS system.

(End of Task 2.0)